

Commonwealth of Kentucky
Division for Air Quality
PERMIT STATEMENT OF BASIS

Title V Draft No. V-98-008
SOUTHWIRE COMPANY
HAWESVILLE KY.
June 5, 2000
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SOURCE DESCRIPTION:

Southwire company is an aluminum production plant that is adjacent to a primary aluminum source. The primary activity at the plant is to process aluminum billets, sows, and ingots into finished specialty rod and cable. There are two aluminum rod mills and one cable mill. Three melting furnaces and four holding furnaces serve to melt and purify (through flux addition) the ingots or sows for further processing into rod or cable. Three annealing ovens alter the products to desired consumer specifications. Products consist of aluminum and aluminum alloy rod ranging in diameter from 3/8" to 7/8". Rod is used by Southwire and other customers to produce electrical wire and specialty products such as insect screening, welding wire, and nails. Bare overhead conductors, which are cables stretched above the ground that carry electricity from the generating plant to transformers near homes, are also produced.

Southwire is considered to be a part of the primary source (NSA). However, two separate permits will be issued due to independent responsible officials at each plant. Thus, each plant is responsible for individual compliance assurance.

Conservative calculations have shown Southwire to be major for HAP's; however, there are no applicable requirements at this time. In 1999, the source may be subject to secondary aluminum production MACT requirements. HF emissions are subject to Kentucky's ambient air quality standards; however, for Title V, modeling is not required.

COMMENTS:

Worst case fuel emission calculations demonstrate that SO₂ emissions are approximately 75% of the standards specified in 401 KAR 59:105, New process gas streams and approximately 9% of the standards specified in 401 KAR 61:035, Existing process gas streams, therefore no additional monitoring is required. Additionally, limits on fuel oil usage and sulfur contents ensure that the SO₂ emissions do not exceed PSD's significant net emission rate.

In order to grant operational flexibility, operational limitations for particulate emissions are not implicitly stated but are inherent in the emission limitation and compliance assurance measure.

Types of Control and Efficiency:

None

Emission Factors:

Combustion source emissions were calculated using AP-42 emission factors.

For the dross reclaim area, emission factors were obtained from permit S-94-039 for HF, aluminum oxide, and Chlorine. These factors were previously approved by the Division for Air Quality.

Emissions for HCl and Cl₂ were based on flux supplier information.

Applicable regulations:

40 CFR 60 Appendix A

401 KAR 50:035

401 KAR 59:010

401 KAR 59:105

401 KAR 61:020

401 KAR 63:022 (State Origin)

401 KAR 61:035